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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,607	06/18/2001	Yimin Hsu		3319

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EXAMINER	
KLIMOWICZ, WILLIAM JOSEPH	

ART UNIT	PAPER NUMBER
2652	9

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/884,607	HSU ET AL.	
	Examiner	Art Unit	
	William J. Klimowicz	2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) *5,8,9,16-37,39 and 42* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6,7,10-15,38,40 and 41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Applicants' election without traverse of Group I (Claims 1-16 and 38-42) and Species I (FIGS. 1-10) which Applicants allege read on claims 1-4, 6, 7, 10-15, 38 and 40-41 in Paper No. 8 (filed June 3, 2003) is acknowledged.

Claims 5, 8, 9, 16-37, 39 and 42 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 8.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6, 7 and 10-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Sasaki (US 6,525,903 B1).

As per claim 1, Sasaki (US 6,525,903 B1) discloses a magnetic transducer (e.g., the embodiment of FIGS. 1-9) comprising: a gap layer (14 and/or including horizontal portion of 16) extending from a write gap (e.g. left side as seen in FIG. 7A) toward a back of a yoke (8C/15C) -

FIG. 7A), the gap layer (14) being in contact with and conforming to a first planarized surface (e.g., uppermost surface as seen in FIG. 4A); a first pole piece (P1) (8a) of ferromagnetic material having a second planarized surface (e.g., uppermost surface as seen in FIG. 2A); a second pole piece (P2) (15b) with a tip positioned at the write gap and in contact with the gap layer (14/16); a third pole piece (P3) (15a) of ferromagnetic material contacting the second pole piece (15b) and extending toward the back of the yoke (at (15c)); a pedestal (8b) of ferromagnetic material extending from the planarized surface (e.g., uppermost surface as seen in FIG. 2A) of the first pole piece (8a) to the write gap, a planarized surface of the pedestal (e.g., uppermost surface as seen in FIG. 4A) being in contact with the gap layer (including (14)) - FIGS. 4A-5A, a back surface of the pedestal (8b) defining a zero throat height line (since its back surface is closer to the ABS than the back surface of (15b)) and the back surface being perpendicular to a bottom surface of the second pole piece (15b); a first back flux closure of ferromagnetic material (8c) in contact with the first pole piece (8a) and forming part of the back of the yoke; a second back flux closure (15c) of ferromagnetic material forming part of the back of the yoke in contact with the first back flux closure (8c) and extending to contact the third pole piece (15a) - FIG. 7A; and a first coil (18) including a plurality of turns of electrically conducting material which pass between the second pole piece (15b), the third pole piece (15a), the gap layer (14/16) and the second back flux closure (15c).

As per claim 2, further comprising a second coil (12) including a plurality of turns of electrically conducting material which pass between the first pole piece (8a), the pedestal (8b), the gap layer (14/16) and the first back flux closure (8c), the second coil (12) being separated

from the first pole piece (8a) by a layer (10) of dielectric material disposed on the planarized surface (e.g., FIGS. 2A-3A) of the first pole piece (8a).

As per claim 3, wherein the turns of the first coil (18) have an average spacing distance and the back surface of the pedestal (8b) is located within the average spacing distance from the second coil (12). See the first embodiment including FIG. 7A, wherein coil (12) (i.e., the leftmost coil portion (12)) is directly adjacent pedestal (8b) and thus within a average spacing distance of the second coil (12).

As per claim 4, wherein the turns of the first coil (18) are in contact with the gap layer (14/16).

As per claim 6, wherein the second pole piece (15b) has a narrowest extent over the pedestal and flares out to a wider extent further away from the pedestal (8b) - see FIG. 8.

As per claim 7, wherein the third pole piece (15a) contacts the second pole piece (15b) at the wider extent and ends before an air bearing surface of the magnetic transducer (i.e., the left side of FIGS7A and 8).

Additionally, as per claim 10 (and as per claim 38 rejected, *infra*), the pedestal pole piece (8b) is disposed in contact with a first side of the gap layer (14/16), the pedestal pole piece (8b) confronting the P2 (15b) across the gap layer forming a write gap, and the pedestal pole piece (8b) contacting the P1 (8a) which extends parallel to the gap layer to the back of a yoke (8c/15c); the P3 (15a) being in contact with the P2 (15b) and extending to the back of the yoke (8c/15c); ferromagnetic material (e.g., 8c and 15c) forming the back of the yoke in contact with the P1 (8a) and the P3 (15a); a "first" coil (12) (note than Applicant has switched reference to the "first" and

"second" coils in independent claim 10 and also independent claim 38, which is rejected below, relative to independent claim 1) including a plurality of turns of electrically conducting material passing between the P1 (8a) and the gap layer (14/16); and a second coil (18) including a plurality of turns of electrically conducting material passing between the P3 (15a) and the gap layer (14/16) and confronting the first coil (12), the first and second coils (12 and 18) being separated by the gap layer (14 and/or at least the horizontal portion of 16).

As per claim 11, the first planarized surface (e.g., uppermost surface as seen in FIG. 4A) further comprises an upper surface of the first coil (12) - see FIG. 4A.

As per claim 12, the first planarized surface further comprises areas of photoresist material and areas of alumina (e.g., see, *inter alia*, COL. 11, lines 31-41).

As per claim 13, the turns of the second coil (18) are in contact with the gap layer (14/16).

As per claim 14, wherein the first (12) and second (18) coils are in contact with the gap layer (14/16) on opposite sides of the gap layer (14/16) (i.e., at least some turns of (12)).

As per claim 15, the pedestal pole piece defines a zero throat height (since its back surface is closer to the ABS than the back surface of (15b)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 38 and 40-41 rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (US 6,525,903 B1).

See the description of Sasaki (US 6,525,903 B1), *supra*.

Additionally, as per claim 40, the pedestal pole piece (8b) has a width which is substantially wider than a width of the tip of the second pole piece (15b). See FIG. 7B.

As per claim 41, the second pole piece (P2) (15b) has a narrowest extent at the write gap and flares out to a widest extent forming a stitch area in contact with the third pole piece (P3) (15a). See FIG. 8.

As per claim 38, although Sasaki (US 6,525,903 B1) does not expressly disclose the magnetic write head as being provided in a conventional disk drive, including a disk having a thin film of ferromagnetic material on a planar surface of the disk; a spindle rotatably supporting the disk; an actuator supporting a magnetic transducer having an air bearing surface confronting the planar surface of the disk, the magnetic write head of Sasaki (US 6,525,903 B1) in made for express use in such a conventional disk drive.

Official notice is taken that disk drives including the disk drive components set forth in claim 38 are notoriously old and well known and ubiquitous in the art; such Officially noticed fact being capable of instant and unquestionable demonstration as being well-known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the magnetic write head of Sasaki (US 6,525,903 B1) within its intended operating environment, i.e., a conventional magnetic hard disk drive.

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the magnetic write head of Sasaki (US 6,525,903 B1) within its intended operating environment, i.e., a conventional magnetic hard disk drive in order to utilize the self-evident advantages of the disclosed head of Sasaki (US 6,525,903 B1) in such a conventional disk drive.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (703) 305-3452. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

William J. Klimowicz
Primary Examiner
Art Unit 2652

WJK